

REMARKS

Applicant respectfully requests favorable reconsideration of this application in view of the following remarks.

The present invention pertains to methods and apparatus for determining network congestion and relieving that congestion by rerouting calls in the peripheral networks and/or implementing call gapping in the peripheral networks (i.e., the networks that are inter-connected by the central network). In the particular embodiment described in the specification in connection with Figure 4, for example, a list is made of all of the congested virtual trunk groups (VTGs) of the central network, and for each congested VTG, a number of DSO channels, D , is determined, wherein D is the difference between the number of channels presently in the VTG and the number of channels that the VTG would need to have in order to bring the traffic in that VTG below a predetermined congestion threshold (steps 401-419 in Figure 4). Then, a second list of VTGs is created comprising each VTG for which there exists a path between the source and destination nodes of the congested VTG (steps 421-429). Then it is determined if there are any alternative sources of gateways between the source and destination nodes that can accommodate the overflow from the particular congested VTG (steps 433-435). If so, the necessary information, such as the identity of the alternate source of gateway node, the identity of the VTG, the peak cell rate (pcr) of the new path, and the fraction of calls from the VTG that should be rerouted in the personal networks is forwarded to the peripheral network for implementation (step 437).

All of the claims are indicated as allowable except for claims 1, 2, 10, 17, 18, and 26. The rejections are the same as asserted in the previous Office Action, namely, claims 1 and 17 are rejected as anticipated by Ma, claims 2 and 18 are rejected as obvious over Ma in view of Kim, and claims 10 and 26 are rejected as obvious over Ma in view of Szentisi.

In particular, the Office asserted that Ma teaches the three steps of independent claims 1 and 17 of (1) identifying a first set of virtual pipelines for which traffic exceeds a predetermined threshold; (2) for each virtual pipeline in each said set, determining the number of additional channels needed to cause said traffic through said pipeline to not exceed said predetermined threshold; and (3) for each pipeline in said first set, assigning a corrective action and an amount of corrective action taken in said peripheral networks as a function of said number of additional channels.

With respect to claims 2 and 18, the Office acknowledged that Ma does not disclose that step 3 comprises assigning a call gapping rate for each such peripheral network contributing traffic to a pipeline for which traffic exceeds said predetermined threshold. However, the Office asserted that Kim discloses that step and that it would have been obvious to use call gapping as taught by Kim in Ma's system. With respect to claims 10 and 26, the Office asserted that Szentisi discloses the rerouting of calls in the peripheral network and that it would have been obvious to use the rerouting of calls as taught by Szentisi in Ma.

The pertinent issue here is whether Ma teaches the second step of claim 1, i.e., "determining a number of additional channels needed to cause said traffic

in said pipeline to not exceed said determined threshold". The Applicant and the Examiner have gone back and forth on this issue and the arguments need not be repeated here. However, based on the Response to Arguments section of the Final Office Action of June 14, 2005, it does not appear that the dispute between the Applicant and the Examiner concerns the teachings of the Ma reference. Rather, it appears that the dispute concerns what step (2) of claim 1 recites. Particularly, the point that Applicant has been trying to make is that step (2) of claim 1 recites determining a specific number of additional channels, that number being the number "needed to cause said traffic through said pipeline to not exceed said predetermined threshold" (claim 1) and that, while Ma discloses the step of adding channels to the pipeline, it still does not meet this limitation. Specifically, there is nothing in Ma that suggests that Ma determines a specific number of channels based on the threshold and the need to reduce traffic below that threshold.

In fact, what little Ma does disclose about the number of channels added when it adds channels suggests that that number is a fixed number. Particularly, for instance, Ma speaks in terms of "blocks" of channels without any discussion of how many channels are in the block. This clearly seems to imply that the number of channels in a block is some fixed number.

Of course, whether or not this implication is accurate is irrelevant. The only thing that matters is that Ma does not disclose calculating the specific number of channels that is necessary to reduce congestion below the threshold since that is exactly what step (2) of claim 1 recites.

The Final Office Action discloses that the Office did not appreciate that this is Applicant's argument. Specifically, in the Response to Arguments section of the Action, the Officer disputed Applicant's previous arguments by noting that column 8, lines 26-30 of Ma teaches

Similarly, these background processes negotiate with the termination side to add a block of additional bandwidth when a maximum utilization threshold is exceeded in order to anticipate periods of over utilization and accommodate the extra bandwidth demand.

The Office also referred to column 7, lines 26-38 which teaches:

Moreover, if necessary, depending upon the current load conditions, centralized call admission control/monitor module 145 instruct then with manager monitor module 150 to dynamically adjust the size of each virtual path, virtual channel, and virtual path group with instructions to and from the CAC at specific ATM switches. ATM switch 130k (and any other ATM switch in the ATM network) adjusts, alter, creates, or destroys the actual size of the virtual path, as instructed by the bandwidth manager module 150, so that, if possible, the call requested by a client to call control module 140 can be made. The CAC at each ATM switch checks every connection created or changed, no matter how or when it is created.

However, neither of these quoted sections contains any disclosure as to if or how the system determines how many channels are added. Hence, it could not possibly meet this step.

Thus, hopefully it is now clear that Ma does not teach step (2) of claim 1.

Independent claim 17 substantively corresponds to claim 1 and thus distinguishes over Ma for exactly the same reasons.

Hence, Applicant respectfully requests the Office to withdraw the rejection of claims 1 and 17 as anticipated by Ma.

The remaining rejected claims, namely, claims 2, 18, and 26, are dependent claims that depend from either claim 1 or claim 17. The secondary

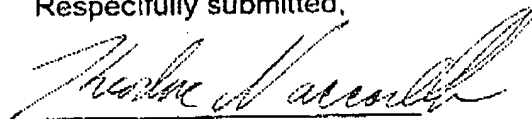
references do not disclose the missing teachings discussed above in connection with Ma. Thus, claims 2, 10, 18, and 26 distinguish over the proposed prior art combinations for exactly the same reasons given above in connection with claims 1 and 17.

As previously noted, the Office has already indicated that all other claims patentably distinguished over the prior art of record.

Conclusion

In view of the foregoing amendments and remarks, this application is now in condition for allowance. Applicant respectfully requests the Examiner to issue a Notice of Allowance at the earliest possible date. The Examiner is invited to contact Applicant's undersigned counsel by telephone call in order to further the prosecution of this case in any way.

Respectfully submitted,



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